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BWT1USA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Ashman et al.

Application No.: 09/381,385

Filed: February 1, 2000

For: LAMINATED MATERIALS AND
CONTAINERS THEREFROM

MAIL STOP AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Examiner: Marc A. Patterson

Group Art Unit: 1772

CERTIFICATE UNDER 37 CFR 1.8(a)

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APPEAL BRIEF

Sir:

This is an Appeal Brief submitted in accordance with 37 CFR §1.192 and within two months from the filing of a Notice of Appeal on March 20, 2003. The appeal is taken from a final rejection issued on November 25, 2002 for the above identified application.

Real Party in Interest

The real party in interest is Betts UK Limited (via assignment recorded in the U.S. Patent and Trademark Office on February 1, 2000, reel/frame: 010610/0955).

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

On March 20, 2003, Appellant appealed from the final rejection of all pending claims, 1, 2, 5-7, 12 and 15-35. Claims 3, 4, 8-11, 13 and 14 are canceled.

Status of Amendments

No amendments have been entered in the above referenced application since the Final Office Action dated November 25, 2002. An Amendment After Final was filed in the U.S. Patent and Trademark Office on March 20, 2003 in an effort to reduce the issues for appeal; however, the Amendment After Final was refused entry in an Advisory Action dated April 17, 2003 stating that "new issues" were raised.

Summary of the Invention

In one aspect, Appellant's invention provides a method of reducing absorption of flavor molecules of flavored goods into a laminate material that forms the walls of a container in which the goods are stored. In another aspect, Appellant's invention provides a laminate material, and container made therefrom, that provide improved prevention of loss of flavoring of flavored goods contained in the laminate/container. As will be discussed, the laminate material/container of the present invention is intended for use in storing flavored goods that have a relatively long shelf-life. (See the present application on page 1, lines 23-27).

The laminate material/container of the present invention restricts both permeability of vapor and oxygen through its walls and absorption of flavoring molecules of its flavored contents into the walls of the laminate. There is a clear physical distinction between absorbability and permeability. Permeability measures vapor and oxygen passing through a material in a given time. In contrast, absorbability relates to the amount of a stored good,

such as its flavoring molecules, absorbed into a material and is measured by determining the weight gain of the material over a given period of time.

As a specific example, the laminate material of the present invention may be utilized to form a tube of toothpaste for containing, storing, and dispensing flavored toothpaste. The filled and sealed toothpaste container may not be opened for the first time, such as by an end user, until as much as three years after the flavored toothpaste was originally filled and sealed in the container. If absorption of flavoring molecules into the walls of the container is not prevented during this possible long shelf-life period, the end user will be provided with a toothpaste that is flat and that has lost its advertized flavor. However, if the laminate material utilized to package the flavored toothpaste is configured according to the present invention, the toothpaste will retain the advertized flavoring since the flavoring molecules will be prevented from being absorbed into the walls of the toothpaste container during the course of its three year shelf life.

According to the present invention, absorption can be reduced by providing a multilayer laminate that has an outer layer, a non-platelet-filled non-polyolefin vapor barrier layer, and a talc-filled polyolefin layer. The multilayer laminate is utilized to form a form-holding container body, such as a tube of toothpaste. The talc-filled layer is required to be located between the barrier layer and a flavored good contained within a container made of the laminate material. This required placement of the talc-filled layer relative to the flavored good is critical if the laminate material is to provide the significant benefit of reducing absorption of flavor molecules of the flavored good into the laminate material, more specifically, into the non-platelet-filled vapor barrier layer, which would otherwise occur. Of course, a reduction of absorption of flavor molecules is especially important when the good being packaged is a flavored good having a long shelf-life (ie., a three year shelf life).

In addition, the combination of the above referenced placement of the talc-filled polyolefin layer relative to a non-platelet-filled non-polyolefin vapor barrier layer permits the thickness of the non-polyolefin vapor barrier layer to be reduced to less than 25 microns and yet provide the laminate material as a whole with low vapor permeability and desired wall stiffness. (See the present application, for instance, on page 7, lines 8-18, and on page 14, lines 9-12.)

Issues

The issues in this appeal are as follows:

I. Whether or not the Examiner properly applied 35 USC §112, first paragraph, in rejecting claims 1, 2, 5-7, 12 and 15-35 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one of skill in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, namely a “non-platelet-filled” barrier layer;

II. Whether or not the Examiner properly applied 35 USC §112, second paragraph, in rejecting claims 1, 2 and 5 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention, namely with respect to the use of the phrase “flavor molecules”;

III. Whether or not the Examiner properly applied 35 USC §112, second paragraph, in rejecting claims 1, 2, 5-7, 12 and 15-35 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention, namely with respect to the use of the “whereby clauses” in claims 1, 6 and 15;

IV. Whether or not the Examiner properly applied 35 USC §112, second paragraph, in rejecting claims 7 and 15 as being indefinite for failing to particularly point out and

distinctly claim the subject matter which Appellant regards as the invention, namely with respect to the use of the phrase “ Commission Internationale d’Eclairage (CIE) whiteness”; and

V. Whether or not the Examiner properly applied 35 USC §102(b) in rejecting claims 1, 5-7, 12 and 15-35 as being anticipated in view of U.S. Patent No. 4,528,235 issued to Sacks et al..

Grouping of Claims

Claims 1, 2, 5, 16, 17 and 27-32 stand or fall together.

Claims 6, 7, 12, 18-26, and 33-35 stand or fall together.

Claim 15 stands or falls on its own.

Argument

I. 35 USC §112, first paragraph, Claim Rejections

In the Final Office Action, the Examiner rejected claims 1, 2, 5-7, 12 and 15-35 under 35 USC §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one of skill in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. More specifically, the Examiner objects to the phrase “non-platelet-filled” core barrier layer as used in each of the independent claims, 1, 6 and 15.

The present application, as filed, reads as follows from page 9, line 33, to page 10, line 20:

“With reference to Fig. 3, there is shown a seven layer laminate 31 having an overall thickness of about 275 to 300 microns. This general laminate structure was used for a number of control samples 3-5, and a number of samples 6-13 according to the present invention. The laminate 31 from inside to outside comprises layers 32-38. The inner layer 32 is a layer of LMPDE about 25 to 35 microns thick. The adjacent outer layer 33 is HDPE with a thickness of from 15 to 50 microns which is adhered to a barrier layer 35 by a tie layer 34. **The barrier layer 35 is an EVOH layer or an amorphous polyamide layer.** The barrier layer 35 is about 10 to 15 microns thick and the tie layer 34 has a thickness of about 5 to 7.5 microns. Externally of the barrier layer 35 is a second tie layer 36, an outer HDPE layer 37 having a thickness of from about 50 to 190 microns, and an external LHPDE layer 38 having a thickness of about 25 to 35 microns.

The thickness in microns of the various layers for each control sample is given in Table 1 below.

The samples 6-13 according to the present invention **include layers of polymer filled with 15% ww talc (Magsil Osmonthous) arranged inside of the barrier layer 35.** The structure of samples 6-13 are also given in Table 1 below with layer thickness in microns.”

Table 1 of the present application, as filed, indicates with a single asterisk (*) all the layers that are “15% ww talc filled material” and with an apostrophe (‘) all the layers that are “1% ww talc filled material”. (See Table 1 on page 11.) **The layers that are not marked with a single asterisk (*) or an apostrophe (‘) contain no filler.** This is clearly the spirit and intent of the present application, as filed. The barrier layer 35 for examples 6-13 are not marked with a single asterisk (*) or an apostrophe (‘), and thus, are made of EVOH or amorphous polyamide and are non-platelet filled.

In the Office Action, the Examiner admits that the specification on page 11, lines 1-14, indicates that the barrier layer is not 15% by weight talc filled. (Of course, utilizing this same logic, the barrier layer is also not 1% by weight talc filled. See Table 1.) The Examiner’s position is that “no broader language is used which would exclude all platelet fillers.”

The Appellant respectfully disagrees with the Examiner's position. It is clear from the specification of the present application, as filed, that the layers of the laminate do not include a platelet filler unless specifically identified as containing a platelet filler. For example, Table 1 on page 11 of the present application clearly identifies those layers that include a filler. The filled layers are identified as being either 15% or 1% filled. The other layers identified in Table 1 that are not marked as containing a platelet filler, include no filler.

The examples of the present invention discussed with respect to Table 1 are directed to the use of platelets of talc as a filler. However, it is clear that the same teaching applies equally to the other platelet fillers disclosed by the application. For instance, see page 4, lines 20-21, of the present application which discloses platelet fillers made of clay, mica, graphite and montmorillonite. Thus, while talc is utilized in examples 6-13, it is clear from the application that talc can be replaced with other platelet fillers. However, regardless of the platelet filler utilized, the layers identified as not containing a filler remain non-platelet-filled. This is clearly the intent and spirit of the specification of the present application, as filed.

In summary, Appellant respectfully submits that the use of the phrase "non-platelet filled" is subject matter that is fairly described in the specification in such a way as to reasonably convey to one of skill in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The above discussed Examples (6-13) disclosed in the specification of the present application, as filed, include a number of laminate structures made in accordance to the present invention. The composition of each layer of each laminate structure is precisely disclosed. The barrier layers are disclosed as consisting of EVOH or an amorphous polyamide. Some layers of the laminate are marked as containing 1% or 15% of filler. The unmarked layers, which include the barrier layers 35, contain no filler.

The phrase “non-platelet filled” was added to claims 1, 6 and 15 in a previous amendment solely to aid the Examiner in understanding the significance of the present invention. The core barrier layer in the claims of the present application is required **to consist essentially of a vapor impermeable non-polyolefin thermoplastic material**. The terminology “consisting essentially of” limits the core barrier layer to be made only of the recited vapor impermeable non-polyolefin thermoplastic material and unrecited elements that do not materially affect the basic and novel characteristics of the recited material. Thus, the core barrier layer as claimed in the present application clearly is made only of the recited vapor impermeable non-polyolefin thermoplastic material and does not include any unrecited elements, such as platelet filler material.

Appellant submits that the use of the term “non-platelet-filled core barrier layer” in claims 1, 6 and 15 is fairly described in the specification in such a way as to reasonably convey to one of skill in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. To this end, one of skill in the art realizes that only the layers specifically identified as including a platelet filler, include a platelet filler.

Appellant respectfully submits that the claims of the present application are in compliance with 35 USC §112, first paragraph.

II. 35 USC §112, second paragraph, “Flavor Molecules” Rejection

In the Final Office Action, the Examiner rejects claims 1, 2 and 5 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. More specifically, the Examiner states that the phrase “flavor molecules” recited in claim 1 is indefinite as its meaning is unclear.

The specification of the application, as filed, states the following: "... flavouring components which diffuse through the packaging material with consequent loss of flavour" (page 1, lines 20-22); "without substantial loss of flavouring" (page 1, line 26-27); "reduce the loss of flavourings" (page 2, line 17); "improved resistance to the loss of flavour" (page 4, line 4); "maximum absorption of all flavourings" (page 12, line 10); "reduce the weight loss of flavouring due to absorption into the laminate" (page 14, lines 5-6); and "a marked decrease in flavour absorption" (page 14, lines 14-15). In addition, see the term "flavouring" used as a heading in Tables 3-5 on pages 13, 16 and 17, and see page 12, lines 3-11, of the present application, as filed, that discloses the "flavorings" include "limonene, cineole, menthone and carvone".

The common dictionary definition of flavour, or flavouring, is a substance that affects the sense of taste; and the common dictionary definition of molecule is the smallest particle of an element or compound capable of retaining chemical identity with the substance in mass.

Appellant submits that the meaning of "flavor molecules" is well defined and definite to one having skill in the art based on the use of terms such as "flavour", "flavouring", and "flavouring components" in the specification, as filed, and based on the common dictionary definitions of flavour and molecule, and based on the specific disclosure of the flavourings "limonene, cineole, menthone and carvone".

In the Amendment After Final which was refused entry by the Examiner, an attempt was made by the Appellant to replace the term "flavor molecules" in claim 1 with the term "flavoring", for purposes of providing proper antecedent basis. However, in an Advisory Action, the Examiner refused to enter the Amendment After Final and stated that: "Even if the amendment was entered, the amended claim would not overcome the rejection, because the exact physical and chemical nature of the "flavoring" is unclear.

As stated above, Appellant submits that the meaning of “flavoring” is well defined and definite to one of skill in art based on the use of terms such as “flavour”, “flavouring”, and “flavouring components” in the specification, as filed, and based on the common dictionary definition of flavoring, and based on the specific disclosure of the flavourings “limonene, cineole, menthone and carvone”.

Appellant respectfully submits that the claims of the present application are in compliance with 35 USC §112, second paragraph.

III. 35 USC §112, second paragraph, “Whereby Clauses” Rejection

In the Final Office Action, the Examiner rejects claims 1, 2, 5-7, 12 and 15-35 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. More specifically, the Examiner states that the whereby clause previously added to claims 1, 6 and 15 defines a result rather than a structural limitation.

Independent claim 1 includes the following whereby clause:

“...whereby placement of said further layer of said non-polar thermoplastic polyolefin resin filled with talc inwardly of said core barrier layer relative to the flavored good reduces the absorption of flavor molecules of the flavored good into said laminate material and stiffens said laminate material allowing said laminate material to be of a relatively thin thickness.”

Independent claims 6 and 15 include similar whereby clauses. These whereby clauses were added to each of the independent claims, 1, 6 and 15, in a previous amendment for the sole purpose of aiding the Examiner in understanding the significance of the method/laminate/container of the present invention. The whereby clause was intended to describe a function or operation that necessarily follows from the previously recited structure/method steps.

The word “whereby” as used in claims is equated with the phrase “it follows from the foregoing that ...”. Appellant submits that the whereby clause is not indefinite and merely informs that “it follows from the foregoing that” the placement of the talc-filled layer inward of the barrier layer relative to a flavored good contained by a container made of the laminated material reduces absorption of flavoring of the flavored good into the laminated material and stiffens the laminated material allowing the laminated material to be of a relatively thin thickness. Thus, it is respectfully submitted that this whereby clause merely describes a function or operation that necessarily follows from the previously recited structure/method steps of the claim, and therefore, is proper and definite.

Appellant respectfully submits that the claims of the present application are in compliance with 35 USC §112, second paragraph.

IV. 35 USC §112, second paragraph, “CIE Whiteness” Rejection

In the Final Office Action, the Examiner rejects claims 7 and 15 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. More specifically, the Examiner states that the phrase “Commission Internationale d’Eclairage (CIE) whiteness index” is indefinite, as it is directed to an international standard and may therefore change with time.

Appellant respectfully disagrees that the phrase “Commission Internationale d’Eclairage (CIE) whiteness index” is indefinite. The Commission Internationale d’Eclairage, also known as the International Commission of Illumination, is recognized as an international standardization body and has been a highly respected authority on illumination for over ninety years. The CIE whiteness standard is particularly important and used and relied upon widespread in the paint and paper industries. CIE is recognized as an

international standardization body, for instance, by the International Standard Organization (ISO). Detailed information on CIE, can be located on the CIE website (<http://members.eunet.at/cie/index.html>).

Attached to this Appeal Brief is a Glossary from a UK organization, the Natural Colour System Colour Centre, that utilizes CIE terms as standards. The Glossary states that “CIE is an abbreviation of Commission Internationale d’Eclairage, the international body for colorimetry (measurement of color).” The Glossary also details the relationship between CIE whiteness, blackness and chromaticness.

Appellant respectfully disagrees that the CIE whiteness index is subject to change. As stated above, the CIE whiteness index is relied upon to provide constant and predictable standards for the paint and paper industries as well as others. The CIE whiteness index is a specifically defined standard, as detailed in the above referenced glossary, and is relied upon because it provides a constant and predictable standard.

Further, use of the term “CIE whiteness index” has been previously determined acceptable by the U.S. Patent and Trademark Office. For example, see U.S. Patent No. 6,465,064 issued to Branch. The ‘064 patent issued from the U.S. national phase of PCT/GB95/02815 which was cited as publication WO 96/17885 to the Examiner of the present application in an Information Disclosure Statement previously filed for the present application. The term “CIE whiteness index” is utilized in the claims of the ‘064 patent.

Thus, for all of the above reasons, Appellant respectfully submits that the phrase “CIE whiteness” is not arbitrary, nor is it subject to change. The claims of the present application are in compliance with 35 USC §112, second paragraph.

V. 35 USC §102(b) Rejection

In the Final Office Action, the Examiner rejected claims, 1, 5-7, 12 and 15-35 under 35 USC §102(b) as being anticipated in view of U.S. Patent No. 4,528,235 issued to Sacks et al..

A prior art reference anticipates a claim if the reference discloses expressly or inherently all the elements and limitations of a claim. See Kalman v. Kimberly-Clark, 713 F.2d 760, 771, 218 USPQ 781 (Fed Cir. 1983). **Thus, even if one element or limitation is missing, a §102 rejection fails.** This requirement is both statutory and absolute as can be seen from the language of 35 USC §103 which states that:

“A patent may not be obtained though the invention is not **identically disclosed or described as set forth in section 102** of this title, ...”

In the Final Office Action, the Examiner argues that the Sacks patent discloses a multilayer sheet having three layers of high density polyethylene each having 10-50% of a talc platelet filler. In addition, the Examiner states that each of the layers constitutes a barrier layer.

The majority of the disclosure provided by the Sacks patent relates to a thin flexible single layer film utilized as a form-fitting wrap around oxygen-sensitive food products having a short shelf-life. The single layer film includes a platelet filler for purposes of decreasing gas and vapor permeability of the film.

The Sacks patent discloses a film laminate **only** in column 2, lines 17-43; column 3, lines 49-56; column 6, lines 28-54; and in Examples 25 and 26. More specifically, on column 2, lines 17-43; column 3, lines 49-56; and column 6, lines 28-50; and in Example 25, the Sacks patent discloses a two layer laminate in which **both layers are talc-filled**. On column 6, lines 51-54, the Sacks patent states that the laminate can “have a variety of nonfilled film

layers” in addition to the pair of talc-filled layers discussed above. However, column 6, lines 51-54, of the Sacks patent provides no disclosure of where the “nonfilled film layers” are to be located within the laminate and no disclosure of the material from which the “nonfilled film layers” are made. The only disclosure of such an embodiment is in Example 26 of the Sacks patent in which a three layer laminate is disclosed having a talc-filled core layer sandwiched between inner and outer layers of polyethylene that are free of talc (ie., non-talc filled layers).

The present invention as claimed in independent claim 1 relates to a method of reducing absorption of flavor molecules of goods stored in a container into a laminated material used for the manufacture of walls of the container. The method requires providing a laminate material having a non-platelet-filled core barrier layer sandwiched between an outer layer and at least one further layer. The further layer is required to be a non-polar thermoplastic polyolefin resin filled with a platelet filler comprising talc. The core barrier layer is required to consist essentially of a vapor impermeable non-polyolefin and to have a thickness of less than 25 microns. The method further includes the steps of storing a flavored good in the container such that the further layer of non-polar thermoplastic polyolefin resin filled with talc extends between the flavored good and the core barrier layer. It follows from the foregoing method steps that placement of the further layer of the non-polar thermoplastic polyolefin resin filled with talc inwardly of the core barrier layer relative to the flavored good reduces the absorption of flavor molecules of the flavored good into the laminate material and stiffens the laminate material allowing the laminate material to be of a relatively thin thickness.

The present invention as claimed in independent claim 6 relates to a laminated material for the manufacture of a wall of a container. The laminate is required to have an

outer layer with a surface that forms an external surface of a wall of a container formed from the laminated material, and a non-platelet-filled barrier layer consisting essentially of a non-polyolefin thermoplastic material having a thickness of less than 25 microns. In addition, the laminate is required to have at least one further layer that is located on an opposite side of the barrier layer relative to the outer layer. The further layer is required to be a non-polar thermoplastic polyolefin resin filled with a platelet filler comprising talc. It follows from the foregoing laminate structure that the placement of the further layer inward of the barrier layer relative to a flavored good contained by a container made of the laminated material reduces the absorption of flavor molecules of the flavored good into the laminated material and stiffens the laminated material allowing the laminated material to be of a relatively thin thickness.

The present invention as claimed in independent claim 15 relates to a container having a wall formed from a laminated material. The laminate is required to have a non-platelet-filled core barrier layer consisting essentially of a non-polyolefin thermoplastic material, an outer layer with a surface forming an external surface of the container, and at least one further layer arranged on an opposite side of the barrier layer relative to the outer layer. The further layer is required to be a non-polar thermoplastic polyolefin resin filled with platelets of talc, having a minimum aspect ratio of at least 5 and an average aspect ratio of from 16 to 30, and having a Commission Internationale d'Eclairage (CIE) whiteness of at least 40. In addition, the barrier layer is required to have a thickness of less than 25 microns. It follows from the foregoing that the placement of the further layer inward of the barrier layer relative to a flavored good contained by a container made of the laminated material reduces the absorption of flavor molecules of the flavored good into the laminated material and stiffens the laminated material allowing the laminated material to be of a relatively thin thickness.

Thus, each independent claim, 1, 6 and 15, clearly requires a multilayer laminate that has an outer layer, a non-platelet-filled vapor barrier layer, and a talc-filled inner layer and that can be utilized to form a form-holding container body, such as a tube of toothpaste. The specific location of the talc-filled inner layer is required to be between the barrier layer and a flavored good contained within a container made of the laminate material. This required placement of the talc-filled inner layer relative to the flavored good provides the significant benefit of reducing absorption of flavoring of the flavored good into the laminate material. A reduction of absorption of flavoring is especially important when the good being packaged is a flavored good having a long shelf-life (ie., a three year shelf-life).

In the present invention, the claimed method, laminate material and container made therefrom provide improved prevention of the loss of flavoring of flavored good contents of the container because it not only restricts permeability, but also restricts absorption of flavoring from the flavored good into the walls of the laminate. This is accomplished by the placement of the talc-filled polyolefin layer between the non-platelet-filled vapor barrier layer and the flavored goods contained within the container. This claimed placement is crucial to achieve a reduction in the absorption of flavoring molecules into the walls of the laminate material. In addition, the combination of the inward placed talc-filled polyolefin layer with a non-platelet-filled non-polyolefin vapor barrier layer permits the thickness of the non-polyolefin vapor barrier layer to be reduced to less than 25 microns and yet provide the laminate material as a whole with low vapor permeability and with a desired wall stiffness.

There is a clear physical distinction between absorbability and permeability. The Sacks disclosure measures vapor and oxygen passing through a material in a given time. Thus, Sacks is only concerned with permeability. In addition, the films disclosed by the Sacks patent are intended for use in wrapping oxygen sensitive food products that have a

short shelf-life. In contrast, the present invention measures the amount of flavoring absorbed into a material by observing the weight gain of the laminate material over a given extended period of time. Thus, the laminate material of the present invention is intended for use with flavored products that have a relatively long shelf-life.

For example, the laminate material of the present invention may be utilized as a toothpaste container for containing flavored toothpaste. The filled and sealed toothpaste container may not be opened for the first time by an end user until three years after the flavored toothpaste was filled and sealed in the container. If absorption of the flavoring is not prevented, the end user will be provided with a toothpaste that is flat and has lost its advertized flavor. Alternatively, if the layers of the laminate material utilized to package the flavored toothpaste is configured as claimed by the claims of the present invention, the toothpaste will retain the advertized flavoring since the flavoring will be prevented from being absorbed into the walls of the toothpaste container.

The Sacks patent is silent regarding the problem of decreasing absorbability and does not disclose how to restrict absorbability and maintain a low permeability while reducing the thickness of a non-platelet-filled non-polyolefin vapor barrier layer, which is by far the most expensive material. Further, the cited reference provides no motivation to modify its laminate structures as claimed by the present invention because it provides no teaching with respect to reducing the absorption of flavoring into walls of laminates. The Sacks patent is concerned only with permeability, not absorbability, and does not address nor attempt to solve the problems to which the present invention is concerned.

Claim 1 of the present invention requires a non-platelet-filled core barrier layer consisting essentially of a vapor impermeable non-polyolefin (without a platelet filler added) and having a thickness of less than 25 microns. The barrier layer is clearly required not to

contain a platelet filler. In addition, the barrier layer consists essentially of a vapor impermeable non-polyolefin and only unrecited elements that do not materially affect the basic and novel characteristics of the recited material. A platelet filler would materially affect the basic and novel characteristics of the barrier layer; thus, the claimed barrier layer cannot be interpreted to include a platelet filler for this additional reason. As discussed above, these limitations are supported by the examples disclosed in the present application, as filed, in which a platelet filler is not utilized unless specifically indicated.

In the Final Office Action, the Examiner submits that the claim limitation requiring the barrier layer to be non-platelet-filled is not disclosed by the application. Thus, the Examiner interprets the barrier layer as capable of containing a filler. In addition, the Examiner ignores the limitation that the barrier layer consists essentially of a vapor impermeable non-polyolefin which inherently requires the barrier layer to not contain a platelet filler material. Appellant submits that this is an improper interpretation that ignores limitations clearly recited by the claim. Thus, for this reason, the §102(b) rejection should fail.

Claim 1 of the present application also requires that the talc-filled layer be located between the non-platelet-filled barrier layer and the flavored good. The Sacks patent fails to disclose the required placement of the talc-filled polyolefin layer relative to the non-platelet-filled barrier layer and a flavored good. Thus, for this additional reason, the §102(b) rejection should fail.

Claim 1 of the present invention further requires the process step of storing a flavored good in a container formed of the laminate material such that the talc-filled non-polar thermoplastic polyolefin resin layer extends between the flavored good and the non-platelet-filled core barrier layer. The Sacks patent fails to disclose such a method step.

Still further, the use of the inward placed talc-filled polyolefin layer in combination with the non-platelet-filled non-polyolefin vapor barrier layer permits the vapor barrier layer to be reduced to less than 25 microns and yet provide the laminate material as a whole with low vapor permeability and a desired stiffness. The significance of reducing the thickness of the non-polyolefin vapor impermeable barrier layer is that this material is extremely expensive in comparison to the other materials utilized in the laminate. The Sacks patent fails to disclose the claimed combination of an inward placed talc-filled polyolefin layer and a non-platelet-filled non-polyolefin vapor barrier layer that has a thickness of less than 25 microns.

Appellant respectfully submits that the Sacks patent does not disclose all the limitations of claim 1 of the present invention as required by an anticipation rejection under 35 USC §102(b). In particular, the Sacks patent fails to disclose a laminate having a non-platelet-filled barrier layer consisting essentially of a vapor impermeable non-polyolefin and having a thickness of less than 25 microns in combination with a talc-filled layer located between the non-platelet-filled barrier layer and the flavored good. In addition, the Sacks patent fails to disclose the process step of storing a flavored good in a container formed of the laminate material such that the talc-filled non-polar thermoplastic polyolefin resin layer extends between the flavored good and the non-platelet-filled core barrier layer.

For the above reasons, the Appellant respectfully submits that independent claim 1 is patentable over, and is not anticipated by, the Sacks patent under 35 USC §102(b).

Appellant respectfully submits that the Sacks patent also does not disclose all the limitations of independent claims 6 and 15 of the present invention as required by an anticipation rejection under 35 USC §102(b). In particular, the Sacks patent fails to disclose a laminate having a non-platelet-filled barrier layer consisting essentially of a non-polyolefin

thermoplastic material and having a thickness of less than 25 microns in combination with a talc-filled layer located between the barrier layer and a flavored good.

For these reasons, claims 1, 2, 5-7, 12, and 15-35 are submitted as being patentable over the Sacks patent.

Summary

For the reasons stated above, it is submitted that the claims of the present application are in compliance with §112, first and second paragraphs, and that the Sack patent does not disclose every limitation required by the claims. Thus, the final rejection should be reversed.

Our check in the amount of \$320, for the required fee under 37 CFR §1.17(c), is enclosed, and this Appeal Brief is being filed in triplicate as required by 37 CFR §1.192(a). Please charge any deficiency in the fee for this brief to our deposit account 08-3040.

Respectfully submitted,
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In triplicate

Enclosures:

- (a) appendix with copy of claims on appeal
- (b) check for \$320
- (c) NCS Glossary

APPENDIX
COPY OF CLAIMS ON APPEAL

1. A method of reducing absorption of flavor molecules of goods stored in containers into a laminated material used for the manufacture of walls of the containers, comprising the steps of:

providing a laminate material having a non-platelet-filled core barrier layer sandwiched between an outer layer and at least one further layer, said further layer being formed from a non-polar thermoplastic polyolefin resin filled with a platelet filler comprising talc, said core barrier layer consisting essentially of a vapor impermeable non-polyolefin and having a thickness of less than 25 microns; and

storing a flavored good in a container formed from said laminate material such that said further layer of said non-polar thermoplastic polyolefin resin filled with talc extends between said flavored good and said core barrier layer ;

whereby placement of said further layer of said non-polar thermoplastic polyolefin resin filled with talc inwardly of said core barrier layer relative to the flavored good reduces the absorption of flavor molecules of the flavored good into said laminate material and stiffens said laminate material allowing said laminate material to be of a relatively thin thickness.

2. A method according to claim 1, wherein the platelet filler comprises a high purity talc, and wherein the further layer has a CIE whiteness index of at least 40.

5. A method according to claim 17, wherein said additional layer is also filled with a platelet filler.

6. A laminated material for the manufacture of a wall of a container, comprising:
an outer layer having a surface that forms an external surface of a wall of a container formed from said laminated material;
a non-platelet-filled barrier layer consisting essentially of a non-polyolefin thermoplastic material having a thickness of less than 25 microns;
at least one further layer that is located on an opposite side of said barrier layer relative to said outer layer, said further layer being made of a non-polar thermoplastic polyolefin resin filled with a platelet filler comprising talc ;

whereby placement of said further layer inward of said barrier layer relative to a flavored good contained by a container made of said laminated material reduces the absorption of flavor molecules of the flavored good into said laminated material and stiffens said laminated material allowing said laminated material to be of a relatively thin thickness.

7. A laminated material according to claim 6, wherein the platelet filler comprises high purity talc, and wherein the further layer has a Commission Internationale d'Eclairage (CIE) whiteness index of at least 40.

12. A method according to claim 23, wherein said additional layer is also filled with a platelet filler.

15. A container, comprising:

a wall formed from a laminated material having a non-platelet-filled core

barrier layer consisting essentially of a non-polyolefin thermoplastic material, an outer layer having a surface forming an external surface of the container, and at least one further layer arranged on an opposite side of said barrier layer relative to said outer layer,

said one further layer being made of a non-polar thermoplastic polyolefin resin filled with platelets of talc, having a minimum aspect ratio of at least 5 and an average aspect ratio of from 16 to 30, and having a Commission Internationale d'Eclairage (CIE) whiteness of at least 40, and

said barrier layer having a thickness of less than 25 microns ;

whereby placement of said further layer inward of said barrier layer relative to a flavored good contained by a container made of said laminated material reduces the absorption of flavor molecules of the flavored good into said laminated material and stiffens said laminated material allowing said laminated material to be of a relatively thin thickness.

16. A method according to claim 1, wherein said further layer is adjacent the barrier layer and is adhered thereto by a tie layer.

17. A method according to claim 1, wherein, in order to aid welding of the laminated material, the further layer is spaced from the inner surface of the laminated material by an additional layer of non-polar thermoplastics resin material.

18. A laminated material according to claim 6, wherein said further layer has a thickness of between 20 and 150 microns.

19. A laminated material according to claim 18, wherein said further layer has a thickness of about 50 microns.

20. A laminated material according to claim 6, wherein said further layer comprises high density polyethylene.

21. A laminated material according to claim 20, wherein said further layer comprises at least a major portion of high density polyethylene.

22. A laminated material according to claim 7, wherein said further layer comprises high density polyethylene and from 5% to 30% by weight of talc.

23. A laminated material according to claim 6, wherein said further layer is spaced from the internal surface of the laminated material by an additional layer of non-polar thermoplastics resin material.

24. A laminated material according to claim 6, wherein said barrier layer has a thickness of between 5 microns to 25 microns.

25. A laminated material according to claim 24, wherein said barrier layer has a thickness of from 5 microns to 15 microns.

26. A container having walls formed from a laminated material according to claim 6.

27. A method according to claim 1, wherein said core barrier layer has a thickness of from 5 to 25 microns.

28. A method according to claim 27, wherein said core barrier layer has a thickness of from 5 to 15 microns.

29. A method according to claim 1, wherein said core barrier layer is selected from the group consisting of ethylene vinyl alcohol, polyamides, polyacrylonitrile, aliphatic polyketones and aluminium foil.

30. A method according to claim 1, wherein said further layer has a thickness of from 5 to 150 microns.

31. A method according to 30, wherein said further layer has a thickness of from 10 to 70 microns.

32. A method according to claim 2, wherein the platelets of talc have an aspect ratio of at least 5 and an average aspect ratio of from 16 to 30, and wherein said further layer has a CIE whiteness of at least 45.

33. A laminated material according to claim 18, wherein said further layer has a thickness of from 10 to 70 microns.

34. A laminated material according to claim 6, wherein said intermediate barrier layer is selected from the group consisting of ethylene vinyl alcohol and amorphous polyamide material.

35. A laminated material according to claim 7, wherein the platelets of talc have an aspect ratio of at least 5 and an average aspect ratio of from 16 to 30, and wherein said further layer has a CIE whiteness of at least 45.

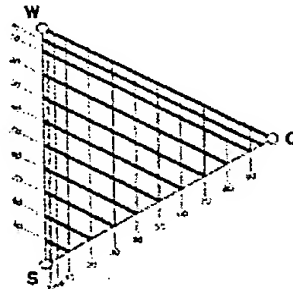
NCS Glossary

Explanations of terms relating to the Natural Colour System.

Delta E is a numerical value calculated from colour measurements. The value was scaled so that 1 unit approximately should correspond to the largest acceptable colour difference in commercial matters.

Achromatic colours - black, white and the greys - are colours that are devoid of any chromaticness.

Blackness describes the perceived amount of black in the colour relative to pure black. A colour with the notation S 2060-Y10R has a blackness value of 20. Colours with the same blackness are found along the straight lines parallel to the side W-C on the NCS Colour Triangle.

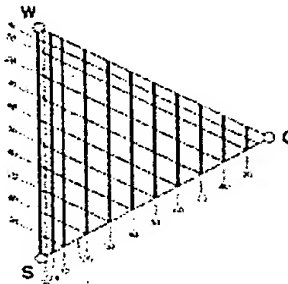


Blueness is a colour's resemblance to the elementary colour blue.

NCS Brilliant is a high gloss version of the collection of the 1750 NCS colours. NCS Brilliant has a gloss level of approximately 85 units. The normal NCS gloss level is 15-20 units.

Chromatic means that a colour corresponds to a hue. The chromatic elementary colours of the NCS System are yellow, red, blue and green.

Chromaticness corresponds to the hue and saturation of a colour. The higher the chromaticness the more saturated the colour is. A colour with the notation S2060-Y10R has a chromaticness value of 60. Colours with the same chromaticness can be found along any straight line which is parallel to the side W-S.



CIE is an abbreviation of Commission Internationale d'Eclairage, the international body for colorimetry (measurement of colour).

CIELAB is a system that is used to define total colour difference by combining three independent variables based on the three opponent pairs of colour vision: white-black, red-green, and yellow-blue.

CMYK stands for Cyan, Magenta, Yellow and Black and is the

colour breakdown used for four colour process printing.

Elementary Colours of the NCS System are yellow, red, blue, green, white and black. All other colours within the NCS System can be described in terms of these colours.

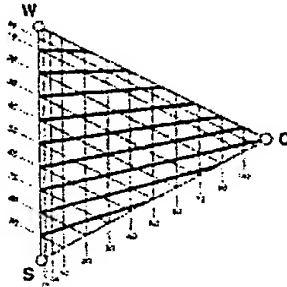
Gloss Level is measured according to ISO 2813, 60°. Gloss level instruments illuminate the surface at a 60° angle and measure the reflected fraction of the light. The minimum gloss level is 0 and corresponds to a completely matt surface and the maximum is 100 gloss units corresponding to a very glossy surface.

Greenness is a colour's resemblance to the elementary colour green.

Hue describes the relative amount of the two nearest chromatic elementary colours that the colour is perceived to contain.

ISO is an abbreviation of International Standards Organisation.

Lightness of a coloured material can be determined either by instrumental measurement of luminous reflectance factor, or by comparison with samples having known lightness values, e.g. the NCS Lightness Meter, which is a grey scale. Colours with the same lightness are found along the straight lines of the diagram. The positioning of these lines will vary for different hues.

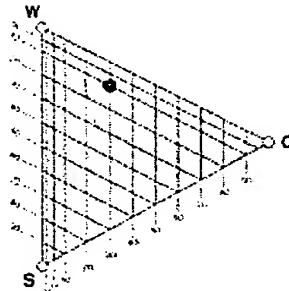


Luminous Reflectance Factor is a measure of how much light is reflected from a coloured material. It is given as a percentage where white has a value of 100% and black has a value of 0%.

Metamerism is present when two objects look the same colour under one light source, but different under another light source. This is due to the objects reflecting different wavelengths under each light source. This effect often occurs with fabrics.

NCS is an abbreviation of Natural Colour System.

Nuance describes a colour's relationship to black and to maximum colour intensity or chromaticness. The other element needed to describe a colour would be the hue. Colours that have the same nuance but a different hue will be found in exactly the same location of the NCS Colour Triangle.



Opponent Colour Theory formulated by Hering in the late nineteenth century is the model on which the NCS System is

based. Red-green, blue-yellow and black-white are called opponent pairs. This means that a colour can not be perceived as both reddish and greenish at the same time. Colours can however be perceived as reddish-yellow or reddish-blue. The transmission of colour signals to the brain is thought to be conducted according to the opponent colour theory.

NCS Primary Standard is a set of unique colour standards for the 1750 NCS colours and is used as reference for production of future standards.



NCS Quality Centre is at the Scandinavian Colour Institute, Stockholm, Sweden (head office for NCS). The **NCS Primary Standard** is kept at the NCS Quality Centre. The SCI's certification to **ISO 9002** is based on the checks that are carried out at the NCS Quality Centre.



NCS Quality Level Standard is the highest NCS quality level and is designed to be the standard for matching. All NCS Standard Sheets are individually measured. 100% have a deviation **Delta E** less than 0.5 from the **NCS Primary Standard**.



NCS Quality Level 1 is designed to be used for professional colour specifying material. Items are spot check controlled. 80% have a deviation **Delta E** less than 0.6 and 100% less than 1.0. Most of the NCS products are produced to Quality Level 1.

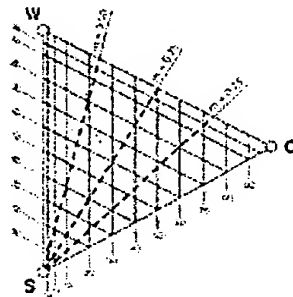


NCS Quality Level 2 is used for products that are produced in large quantities. Items are spot check controlled. 70% have a deviation **Delta E** less than 0.6, 90% less than 1.0 and 100% less than 1.5. The NCS Index and NCS Selection fans are produced to Quality Level 2.

Redness is a colour's resemblance to the **elementary colour red**.

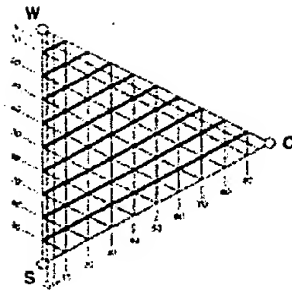
RGB is an abbreviation for Red, Green, Blue and is the colour breakdown used for displaying colour on screen.

Saturation is the term used to describe the strength of a **hue**, or the purity of a colour. Colours with the same saturation are found along a straight line through the black point (S) on the NCS Colour Triangle.



SCI is an abbreviation of Scandinavian Colour Institute. The SCI is based in Stockholm, Sweden and is the head office for NCS.

Whiteness = $100 - (\text{Blackness} + \text{Chromaticness})$. For example, a colour with the notation S 2060-Y10R has a whiteness value of 20. Whiteness = $100 - (20 + 60)$. Colours with the same whiteness are found along any straight line parallel to the side S-C on the NCS Colour Triangle.



Yellowness is a colour's resemblance to the elementary colour yellow.

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Please [click here to e-mail our webmaster](#) with questions or comments.

Natural Color System® The international language of colour communication.

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